A new restaurant in Palma

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A new restaurant in Palma

Introduction

- Palma is a small city in Mallorca island
- High level of turisme
- Around 400.000 habitants
- Increase in money spend in restaurants

Problem to solve

- Company: Comer Bien

- They want to open different restaurants at the center of the city

- They need info of the restaurants of the area to take a decision of the location of the restaurant and which type of food should they make
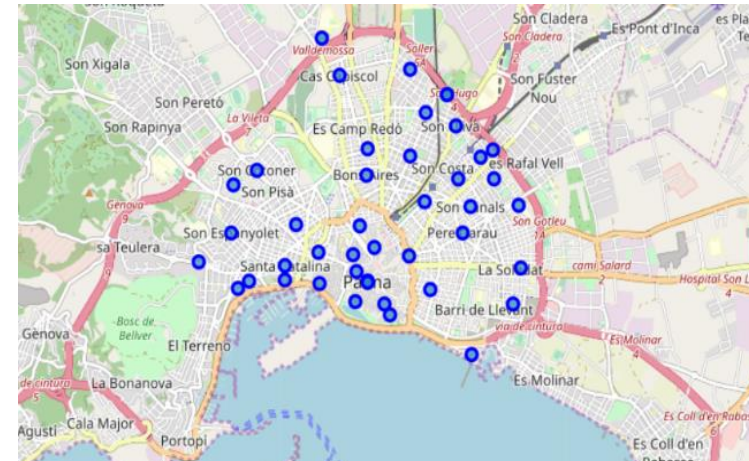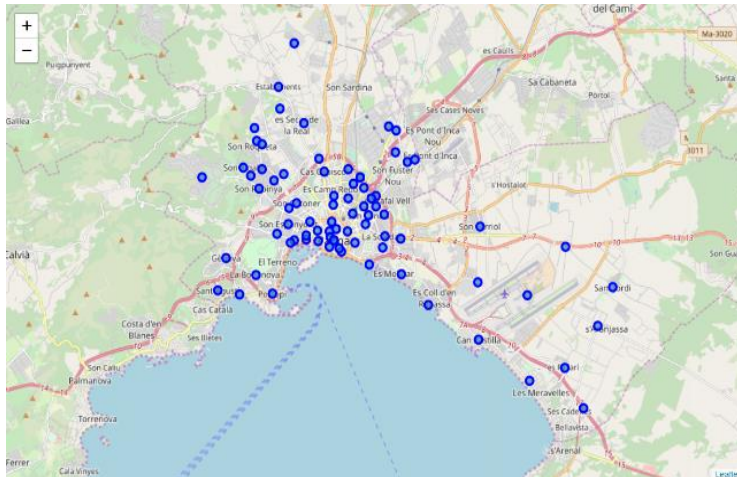
Data used

- Neighborhoods of the city

- Places of interest

- Restaurants in the area

- Socio economic info

Data adquisition and cleaning

- Get list of neighborhoods, longitude and latitude from a table in IBM Cloud

- Eliminate the neighborhoods outside "Via Cintura" (red line)

Data adquisition and cleaning

- Get list of places of interest using Foursquare

- List of restaurants, hotels or other type of places will be obtained filtering the list above

- Socio economic data will be obtained from official platforms, gastronomic blogs and newspapers

Clustering

- First we do a general cluster of the neighborhoods with all the places inside them:
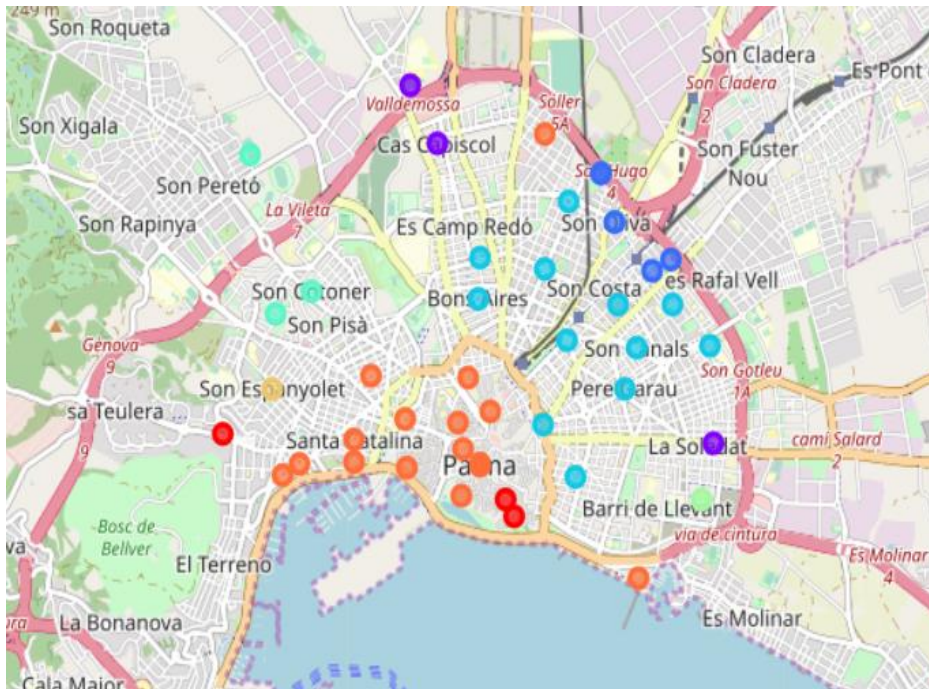
- Cluster 1: small quantity of places
- Cluster 2: familiar neighborhoods
- Cluster 3: industrial location
- Cluster 4: parks and small shops
- Cluster 5: hotels, museums and restaurants
- Cluster 6: small shops and restaurants
- Cluster 7: small shops and restaurants
- Cluster 8: main transport stations

Clustering

- Now we get a classification depending on the restaurants of each neighborhood:
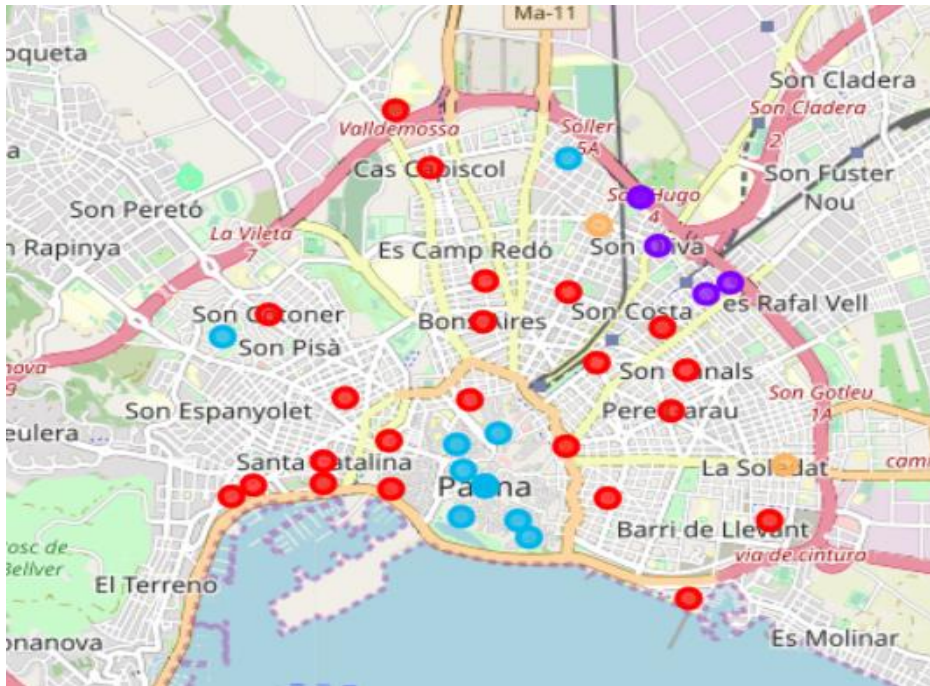
- Cluster 1: Spanish, Italian and Mediterranian
- Cluster 2: tapas and foreign food
- Cluster 3: tapas, Spanish, seafood and veggie
- Cluster 4: small quantity of restaurants
- Cluster 5: mix of everything before

Other treatments

- Get restaurants very near hotels (posible clients)
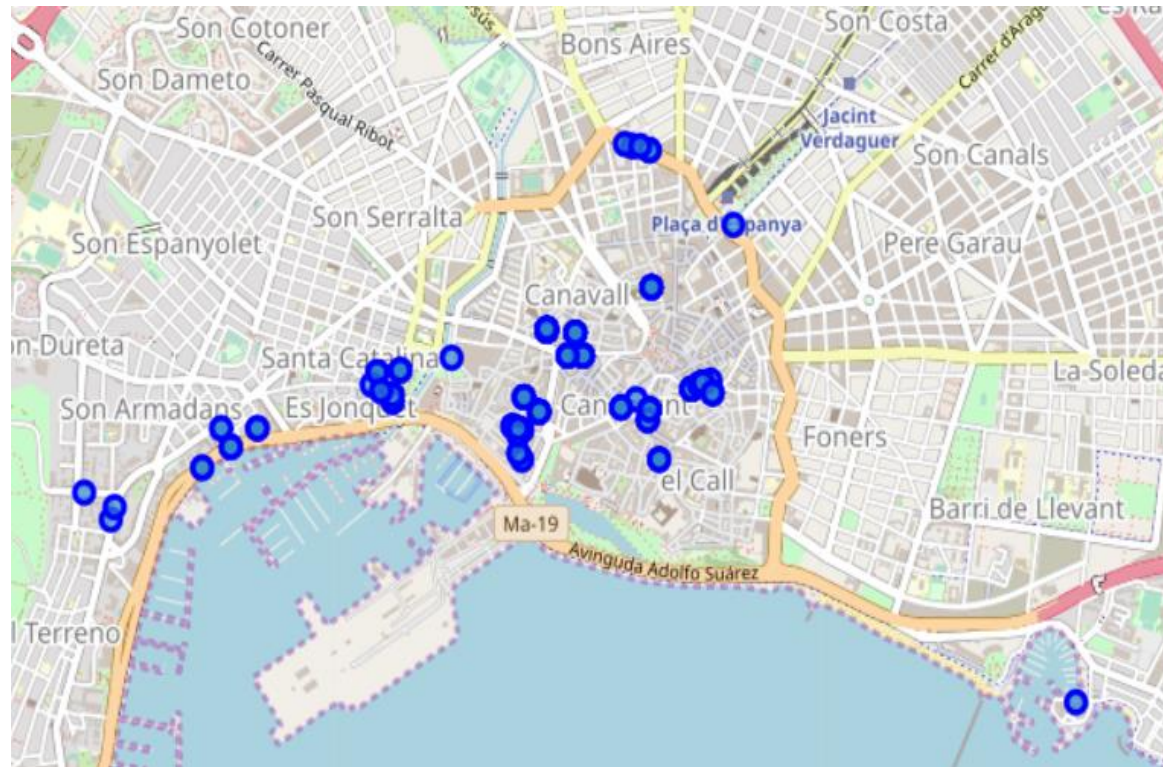
Results

- Map can be Split in different parts:
  - Outside old part (north-east) great for familiar restaurant
  - Near old part great for Tapas and Spanish food (superposed with above)
  - Coast great for Mediterranian or Italian food
  - Old part great for fancy food, Mediterranean or seafood

- Old part and coast can get clients from hotels near them
- Santa Catalina great neighborhood because it is popular, near the coast and between the old part and the part near old part

Future steps and conclusion

- Future steps:
  - Study the relationship between the type of restaurants with the rent price of every neighborhood
  - Study the lack of a certain type of restaurant in the different parts looking the mean income of those restaurants
  - Look for some empty places and do a k-nearest neighbors analysis to obtain which would be the type of restaurant depending on the nearest ones.

- Despite all the above, the results of this projects correlated with the known by the people living in Palma so it can be useful for people that have not been in Palma and want to know more about its gastronomy and which part of the city you can easily eat some kind of food.

Thank you
for your attention!